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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,201	10/05/2006	Yoshikazu Nakayama	P30465	1103
7055 7590 08/27/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER SUAREZ, FELIX E	
			ART UNIT 2857	PAPER NUMBER
			NOTIFICATION DATE 08/27/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/598,201	Applicant(s) NAKAYAMA ET AL.	
	Examiner Felix E. Suarez	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>28 November 2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated over Nakayama et al. (WO 2003/087856). (An English translation has been attached for help in understanding the Japanese document).

With respect to claims 1 and 7-9, Nakayama et al. (hereafter Nakayama) teaches a network analyzer (or a method or a program of instructions to perform a processing or a computer readable medium) comprising:

a measuring system error factor recorder that records a measuring system error factor generated independently of a frequency conversion by a device under test (see page 18, lines 16-27, measuring predetermined parameters concerned the device under test (DUT); and the measurement system error factors);

a correction coefficient outputter that outputs measured first coefficients and second coefficients of a correction frequency converting element (see page 19, lines 4-14, amendment of the error by the proofreading tool; and page 32 line 33 to page 33 line 8, an automatic proofreading being connected to a network

analyzer) wherein a signal output from one terminal is represented as a sum of a product of a signal input to the terminal and the first coefficient and a product of a signal input to the other terminal and the second coefficient, and a ratio of the magnitudes of the second coefficients is constant (see page 16 line 25 to page 17 line 8, S-Parameters of a DUT; and page 44, lines 12-17, the S-Parameters of the DUT 2 are measured, S-Parameters have the same matrix configuration S_{11a} , S_{21a} , S_{12a} , and S_{22a}); and

a transmission tracking error acquirer that acquires a transmission tracking error generated by the frequency conversion based on the measuring system error factor recorded in said measuring system error factor recorder, and the first coefficients and the second coefficients output by said correction coefficient outputter (see page 17, lines 21-31, the signal output acquiring element acquires the predetermined parameter concerning the input signal after the occurrence of the measurement system error factors. Errors result from frequency tracking).

With respect to claim 2, Nakayama further teaches that, if the first coefficients are M_{11}' and M_{22}' , the second coefficients are M_{12}' and M_{21}' , a signal input to a first terminal is a_1 , a signal output from the first terminal is b_1 , a signal input to a second terminal is a_2 , and a signal output from the second terminal is b_2 in said correction frequency converting element,

$$b_1 = M_{11}'x_{a1} + M_{12}'x_{a2}$$

$$b_2 = M_{21}'x_{a1} + M_{22}'x_{a2}, \text{ and}$$

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$|M_{12}'|/|M_{21}'|$ is constant

(see page 16 line 25 to page 17 line 8, S-Parameters of a DUT; and page 44, lines 12-17, the S-Parameters of the DUT 2 are measured, S-Parameters have the same matrix configuration S11a, S21a, S12a, and S22a; and FIG. 12, DUT 2, points 2a, 2b, related to f1 and f2 S-Parameters).

With respect to claims 3 and 10, Nakayama further teaches that, the magnitudes of the second coefficients are the same for either of the terminals (see page 16 line 25 to page 17 line 8, S-Parameters of a DUT; and page 44, lines 12-17, the S-Parameters of the DUT 2 are measured, S-Parameters have the same matrix configuration S11a, S21a, S12a, and S22a; and FIG. 12, DUT 2, points 2a, 2b, related to f1 = f2 S-Parameters).

With respect to claims 4 and 11-13, Nakayama further teaches, comprising:

an input signal measurer that measures an input signal parameter relating to an input signal input to the device under test before the measuring system error factor is generated (see page 30, lines 22-24, input signal measuring element relate to a DUT);

a plurality of ports that are connected to a terminal of the device under test, and output the input signal (see page 31, lines 27-34, DUT 2 with multiple terminal connectors, to connect the network analyzer; and FIG. 1 ITEM DUT 2); and

a device-under-test signal measurer that measures a device-under-test signal parameter relating to a device-under-test signal input from the terminal of the device under test to said port (see page 31, lines 27-34, DUT 2 with multiple terminal connectors, to connect the network analyzer; and FIG. 1 ITEM DUT 2).

With respect to claims 5 and 14-16 Nakayama further teaches, said correction coefficient outputter acquires the first coefficients and second coefficients of said correction frequency converting element according to a ratio of the input signal parameter measured by said input signal measurer and the device-under-test signal parameter measured by said device-under-test signal measurer (see page 33, lines 9-21; and FIGS. 4, 5, ratio measurement data from a receiver (RS) 16a / measurement data from the receiver (TS)16b or DUT in a correction tool to give corrected error factor variables).

With respect to claims 6 and 17-19, Nakayama further teaches, said transmission tracking error acquirer acquires the transmission tracking error based on a ratio of error factors generated in a passage from the device-under-test signal being output from the terminal of the device under test without the frequency conversion to the device-under-test signal being received by said device-under-test signal measurer (see page 38, lines 27-34; FIG. 12, case that, the input signal output from the signal outputting 12 is given to the DUT 2 directly; and page 40, lines 2-20, ratio mathematical formula 6).

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Conclusion

Prior Art

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakayama et al. [U.S. Patent No. 6,496,785] describes a measuring system error factors.

Haruta et al. [U.S. Patent Application Publication No. 2005/0289392] describes a measurement system error factor acquisition.

Haruta et al. [U.S. Patent Application Publication No. 2007/0029989] describes an error factor acquisition device and recording medium.

Nakayama et al. [U.S. Patent Application Publication No. 2006/0005065] describes a measuring system error factors, and automatic corrector.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix Suarez, whose telephone number is (571) 272-2223. The examiner can normally be reached on weekdays from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on (571) 272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular communications and for After Final communications.

August 14, 2007

F.S.


ELISEO RAMOS-FELICIANO
SUPERVISORY PATENT EXAMINER